

RADIOBIOLOGY OF LARGE ANIMALS

SRI Project PYU-8150

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Radiobiology of large animals PROVING dose rate effects on the effects of doses due to P53 repair enzyme on DNA, research sponsored by US Civil Defense agency then covered-up and ignored due to violating politically correct virtue signalling "taboo".

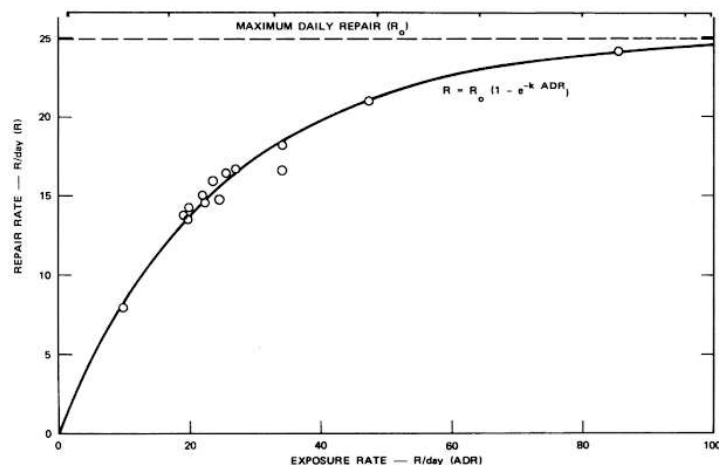


FIGURE 18 THE RATE OF REPAIR OF LETHAL GAMMA RADIATION INJURY IN SHEEP

Table 31

COMPARISON OF MEASURED AND CALCULATED VALUES FOR LD₅₀
AND RATE OF REPAIR OF LETHAL INJURY IN PIGS
RECEIVING PROTRACTED EXPOSURE TO ⁶⁰CO GAMMA IRRADIATION

ADR (R/day)	Rate of Repair		LD ₅₀	
	Measured (R/day)	Calculated*	Measured (R)	Calculated (R)
693	172	171.9	816.3	811.7
100	80.9	80.7	3,200	3,165
94	77.2	77.2	3,444	3,452
50	46.6	46.6	9,025	8,909

* Based on the formula: $R = 174.3 (1 - e^{-0.00622 ADR})$

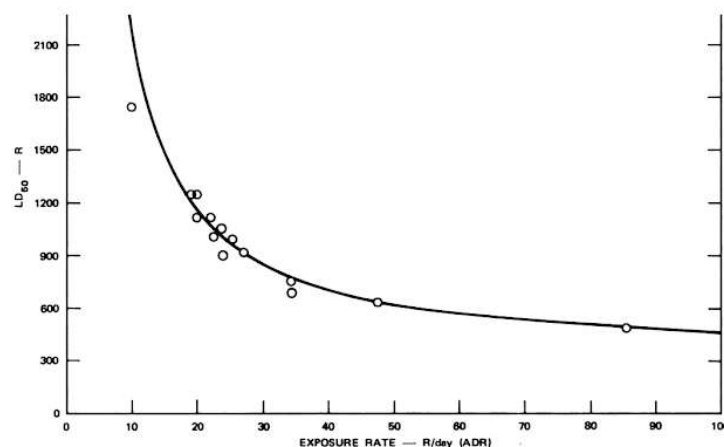


FIGURE 19 THE ACUTE LD₅₀ IN SHEEP FROM GAMMA IRRADIATION IN RELATION TO THE RATE OF RADIATION EXPOSURE (ADR)

Table 33

COMPARISON OF MEASURED AND CALCULATED VALUES FOR LD₅₀
AND RATE OF REPAIR OF LETHAL INJURY IN DOGS
RECEIVING PROTRACTED EXPOSURE TO ⁶⁰CO GAMMA IRRADIATION

ADR (R/day)	Rate of Repair		LD ₅₀	
	Measured (R/day)	Calculated*	Measured (R)	Calculated (R)
72	24.3	24.4	770.4	770.5
50	23.3	22.8	955.0	938.8
35	19.8	20.4	1,176.0	1,222.5
17	13.8	13.9	2,754	2,831
10	8.82	9.51	4,340	10,329
5	4.70	5.31	8,585	--

* Based on the formula: $R = 25.18 (1 - e^{-0.0474 ADR})$

Sheep, pigs, dogs and mice radiation exposure proved DNA repair enzyme P53 had a very large effect on repairing the DNA damage to cells at low dose rates. P53 was overcome at high dose rates. TABOO!

Abridged table:
Table 35

COMPARISON OF MEASURED AND CALCULATED VALUES FOR LD₅₀
AND RATE OF REPAIR OF LETHAL INJURY IN MICE
RECEIVING PROTRACTED EXPOSURE TO ⁶⁰CO GAMMA IRRADIATION

ADR (R/day)	Rate of Repair		LD ₅₀	
	Measured (R/day)	Calculated*	Measured (R)	Calculated (R)
145	50.8	51.0	2,250	2,255
97	45.5	48.6	2,760	2,942
74	44.6	45.2	3,722	3,777
56	39.2	40.2	4,880	5,217
43	32.2	34.4	5,900	7,370
32	24.8	27.1	6,550	9,633
24	18.2	19.9	6,100	8,640

* Based on the formula: $R = 51.66 (1 - e^{-0.032 ADR})$